

12 BEST AVAILABLE COPY

CLAIMS

- A printable*
1. ~~Printable~~ film comprising a substrate and at least a surface layer, said layer covering at least one face of said substrate and consisting essentially of 10 to 98 % by weight of a water-dispersible polymer able to provide a smooth-film formed and reasonably open surface and 2 to 90 % by weight of an ethylenically unsaturated compound selected from polyfunctional acrylates resulting from the esterification of a polyol with (meth)acrylic acid or polyallyl derivatives, whereby said surface layer does not contain an addition polymerization photoinitiator.
- 10 *The printable*
2. ~~Printable~~ film according to claim 1, characterised in that the substrate is selected from the group consisting of polymer films, polyolefin films, papers, synthetic papers, woven fabrics, nonwoven fabrics, ceramic sheets, metallic fibre sheets, metallized sheets (film), metallic foils, metallic plates, and multilayer composite sheets formed by combination of said materials.
- 15 *The printable*
3. ~~Printable~~ film according to claim 2, characterised in that the substrate is an oriented polypropylene film.
- 20 *The printable* *Claim 1* *wherein*
Atoms 4. ~~Printable~~ film according to anyone of claims 1 to 3, characterised in that the water dispersible polymer consists essentially of a homopolymer of (meth)acrylic acid or alkyl (meth)acrylate, the alkyl radical having 1 to 10 carbon atoms, or a copolymer of two or more of said monomers or optionally of other vinylic or allylic compounds.
- 25 *The printable* *Claim 1* *wherein*
Atoms 5. ~~Printable~~ film according to anyone of claims 1 to 3, characterised in that the water dispersible polymer is a urethane or urethane acrylate polymer.
- 30 *The printable* *Claim 1* *wherein*
Atoms 6. ~~Printable~~ film according to anyone of claims 1 to 5, characterised in that said surface layer comprises further a crosslinking agent in an amount of from 1 to 5 % by weight of the water dispersible polymer.
- 35 *The printable* *Claim 1* *wherein*
Atoms 7. ~~Printable~~ film according to anyone of claims 1 to 6, further comprising, between said substrate and said surface layer(s), a primer layer.

The erasable

~~the print area~~ ~~anywhere~~ ~~when~~ ~~Printable film according to anyone of claims 1 to 7, characterised in that only one face is coated with a surface layer and in that the reverse face of the substrate is covered with a pressure-sensitive adhesive layer.~~

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- A process*

5 9. Process for the manufacture of a printable film according to anyone of claims
1 to 8, comprising the step of coating at least one side of the substrate with
an aqueous dispersion comprising the water dispersible polymer and the
ethylenically unsaturated compound and comprising further the step of
drying the coating so obtained.

10 *The process*

10. Process according to claim 9, characterised in that the aqueous dispersion
comprises further a crosslinking agent.

15 *The process*

11. Process according to anyone of claims 9 or 10, characterised in that it
comprises a further step of priming of the substrate, before applying said
aqueous dispersion.

20 *The process*

12. Process for the manufacture of a printed film comprising the steps of
a) coating a substrate with an aqueous dispersion comprising a water
dispersible polymer able to provide a smooth film formed and
reasonably open surface and an ethylenically unsaturated compound
selected from polyfunctional acrylates resulting from the esterification of
a polyol with (meth)acrylic acid or polyallyl derivatives, whereby said
surface layer does not contain an addition polymerisation photoinitiator;

25 b) drying the coating so obtained;

c) inking the dried coating with a radiation curable ink; and

d) curing the ink with UV or EB radiations.

30 *A printed*

13. Printed film obtained by inking a printable film according to anyone of claim
1 to 8 by means of a radiation curable ink and by curing the said ink by
means of radiations.

35 *A label*

14. Label obtained by inking of a printable film according to claim 8, with a
radiation curable ink and by curing of said ink with radiations, said film being
combined before or after printing with a pressure sensitive adhesive layer and
to a release film.

A container

15. Container, in particular bottle, labelled with a label according to claim 14.

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